

# EXDT™

## Cross Dipole Array Sonic Tool

This tool is designed to use a dual monopole and cross dipole sound transducers to generate the acoustic wave signals to the formation, the receiving transducers in array receive acoustic signals from formation in dual directions in 90 degrees. The time difference of longitudinal wave, full wave of longitudinal wave, full wave of dipole transverse wave and orthogonal cross dipole full wave is acquired simultaneously in one run. It is mainly applied in basic rock physical interpretation, and can be used to evaluate porosity of the formation, judge lithology, identify gas formation, analyze permeability; judge direction of strata, anisotropy of formation rock and distribution of principle stress in formation.

### Composition:

Electronics (EA) + Receiver mandrel (MA) + Sound isolator (PA) + Transmitter mandrel (FB) + Transmitter electronics (FA)

### Features / Advancement:

- (1) Multi-pole measurement.
- (2) Full wave Recorded.
- (3) Measurement of dipole wave in dual directions in 90 degrees.
- (4) Evaluate change of formation in the horizontality.
- (5) Identify geologic sedimentation changes of formation in wells.
- (6) Identify fracture of formation in wells.
- (7) Compatibility of EDIB tool.

### Specifications:

Maximum Temperature: 350°F (175°C ) for 4 hrs.  
 Maximum Pressure: 20,000Psi (137.9Mpa).  
 Minimum hole diameter: 4.5 in. (114 mm)  
 Maximum hole diameter: 21 in. (533.4mm)

Maximum diameter:

MA: 3.62 in (92mm)  
 PA: 3.62 in (92mm)  
 FB: 3.62 in (92mm)  
 FA: 3.38 in (86mm)

T-R Spacing:

Monopole T01: 126 in (3200.4mm); T02: 804.66 in (2438.4mm).  
 Dipole T23: 102 in (2590.8mm);



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Instrument length: MA: 61.02 in (4090mm)  
PA: 59.84 in (1520mm)  
FB: 94.88 in (2410mm)  
FA: 42.16 in (1070mm)

Instrument weight: 778.23 lb (353 kg)  
MA: 343.92 lb (156kg)  
PA: 116.84 lb (53kg)  
FB: 240.3 lb (109kg)  
FA: 77.16 lb (35kg)

Maximum Compressive Force: 13227.6 lb (6,000kg)

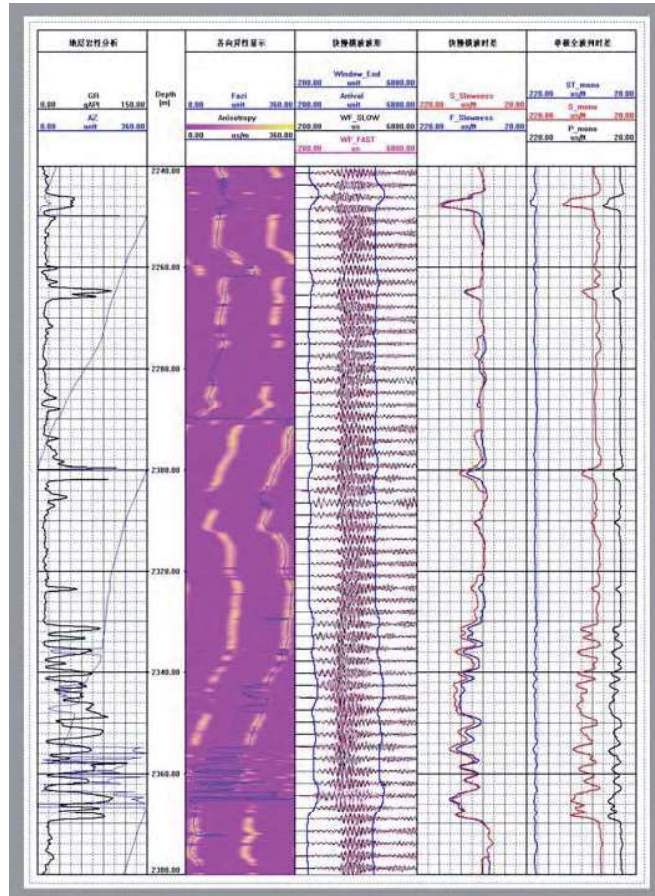
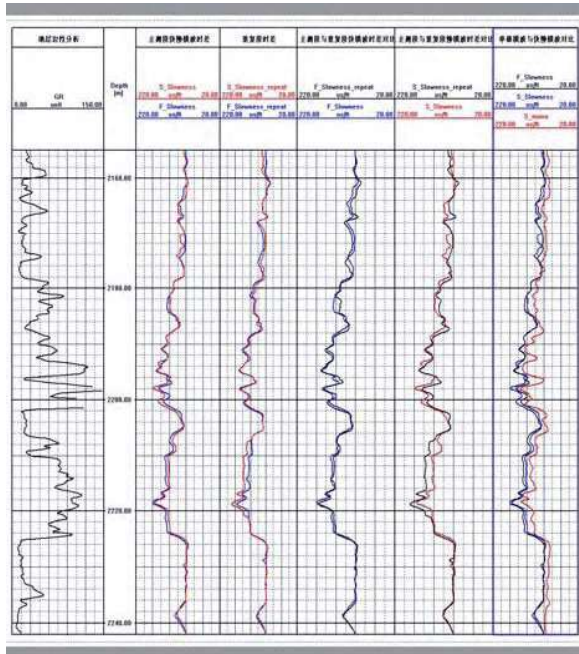
Maximum Tensile Force: 992.07 lb (450 kg)

Maximum logging speed:  
inline Mode: 28ft/min (8.53m/min)  
Crossline Mode: 15ft/min (4.572m/min)

Error precision: DTP<sub>wave</sub>: ± 3% ;  
DTS<sub>wave</sub>: ± 5% ;  
DTST<sub>wave</sub>: ± 5% .

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## Log:



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